

REMARKS/ARGUMENTS

CLAIM OBJECTIONS

In response to the Examiner's objections, claim 48 has been amended to depend from claim 46, as was originally intended. In addition, claims 4, 5, 9, 13, 14, 15, 24, 27, 31, 32, 33, 44, 45, 46, 53, 54, 55, 64, 67, 71, 72, and 73 have been amended to include the word "wherein" as suggested by the Examiner. These objections are thus overcome.

CLAIM REJECTIONS UNDER 35 USC 101

Claims 41-55 and 63-73 have been amended in accordance with the Examiner's suggestions, and the rejection is overcome.

CLAIM REJECTIONS UNDER 35 USC 112

Claims 11-15, 29-33, 51-55 and 69-73 are rejected under 35 USC 112, second paragraph, as being indefinite. The claims have been amended to now not lack proper antecedent basis, and the rejection is overcome.

CLAIM REJECTIONS UNDER 35 USC 103

Claims 1-6, 23, 24, 41-46, 63 and 64 are rejected under 35 USC 103(a) as being unpatentable over US published application 20030123751 to Krishnamurthy et al. ('751 publication) in view of US patent 4970663 to Beddell et al. Each of claims 1-6, 23, 24, 41-46, 63 and 64, as now amended, is allowable because no combination of the '751 publication to Krishnamurthy et al. and Beddell et al. teaches or suggests all of the recited limitations.

The first two elements of Applicants' claim 1 now recite (a) identifying one or more groups of pixels that correspond to a face within the original digitally-acquired still image, including determining within the one or more groups of pixels (i) a relationship between two or more facial features, (ii) a structurally-

invariant facial feature, or (iii) a correlation with a stored standard or learned face pattern, of the one or more groups of pixels, or combinations thereof; and (b) based on the identifying of the one or more groups of pixels that correspond to a face and at least on information relating to location, position, orientation, or other spatial parameter of the face, or focus, white balance, color balance, or exposure of the face, or combinations thereof, selecting a portion of the original still image for processing to include the group of pixels.

In stark contrast, the '751 publication relates to the video processing art, in particular to the processing of sequences of images, rather than to still images. Also, the techniques for determining a region of interest (face region) in the '751 publication rely on the use of voice annotation in combination with determining skin tone pixels. Skin tone alone is not sufficient because skin hue can vary quite significantly from person to person, with ambient illumination and camera settings. Therefore one needs to define the skin tone quite broadly in terms of colors. So, when skin tone is used to detect faces, regions will also be detected that have skin-like color (hair, wall, beach, wood). That is, it is quite common to find other areas in an image that overlap with skin hue, or which can even be preferentially "detected" over skin tones. For example, a face (small) may overlap a yellow wall, and everything ends up being detected as a skin region. In this case, finding face features is unreliable, because the size of any faces and their orientations are not known. As another example, a large table having a color similar to skin tone could be detected as a face, while the people sitting around it may be ignored by the skin-tone algorithm.

The third element of Claim 1, as amended, now recites automatically generating values of pixels of one or more new still images based on the selected portion in a manner which always includes the face within the one or more new still images which differ from the original digitally-acquired still image by including at least one group of pixels modified at least in their location, position, orientation, or other spatial parameter of the face, or focus, white

balance, color balance, or exposure of the face, or combinations thereof, as compared with the one or more groups of pixels identified in the original digitally-acquired still image. This feature is also neither taught nor suggested by any combination of the '751 publication and Beddell et al.

Claims 23, 41, and 63, as amended, are allowable for the same reasons as amended claim 1. Claims 2-15 are allowable as being based on amended claim 1. Claims 24-33 are allowable as being based on amended claim 23. Claims 42-55 are allowable as being based on amended claim 41. Claims 64-73 are allowable as being based on amended claim 63.

Claims 7, 11, 25, 29, 47, 51, 65 and 69 are rejected under 35 USC 103(a) as being unpatentable over Krishnamurthy et al. (the '751 publication) in view of Beddell et al. in further view of US patent 6246779 to Fukui et al. Each of claims 7, 11, 25, 29, 47, 51, 65 and 69, as now amended, is allowable because no combination of the '751 publication to Krishnamurthy et al., Beddell et al. and Fukui et al. teaches or suggests all of the recited limitations, particularly for the reasons set forth above with specific regard to the '751 publication. Moreover, there is no suggestion to combine Fukui et al. with the Krishnamurthy et al. and Bedell et al., as Krishnamurthy et al. and Bedell et al. relate to video imaging, while Fukui et al. relates to the non-analogous field of still imaging.

Claims 8, 9, 14, 15, 26, 27, 32, 33, 48, 49, 54, 55, 66, 67, 72 and 73 are rejected under 35 USC 103(a) as being unpatentable over Krishnamurthy et al. (the '751 publication) in view of Beddell et al. in further view of US published patent application 20030142209 to Yamazaki et al. Each of claims 8, 9, 14, 15, 26, 27, 32, 33, 48, 49, 54, 55, 66, 67, 72 and 73, as now amended, is allowable because no combination of the '751 publication to Krishnamurthy et al., Beddell et al. and Yamazaki et al. teaches or suggests all of the recited limitations, particularly for the reasons set forth above with specific regard to the '751 publication..

Claims 10, 12, 13, 28, 30, 31, 50, 52, 53, 68, 70 and 71 are rejected under 35 USC 103(a) as being unpatentable over Krishnamurthy et al. in view of Beddell et al. in further view of Yamazaki et al. and Fukui et al. Each of claims 10, 12, 13, 28, 30, 31, 50, 52, 53, 68, 70 and 71, as now amended, is allowable because no combination of Krishnamurthy et al., Beddell et al. and Yamazaki et al. teaches or suggests all of the recited limitations, particularly for the reasons set forth above with specific regard to the '751 publication.

NEW CLAIMS

New claims 81-84 are allowable as being based on claims 1, 23, 41 and 63, respectively, as amended.

For the reasons set forth above, it is submitted that the application is now in condition for allowance. The Examiner's reconsideration and further examination are respectfully requested.

The Commissioner is authorized to charge any deficiencies in fees and credit any overpayment of fees to Deposit Account No. 50-2019. A duplicate page is enclosed.

Respectfully submitted,

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Dated: June 18, 2007

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